

AMENDED CLAIMS

1. A system for reproduction of images (1), comprising:
 - at least one input for the simultaneous reception of respective image signals, these image signals corresponding to different images and comprising pixel signals
 - a screen (2) presenting a plurality of pixels with variable optical transmissibility
 - at least one light source (71-77) for each image signal, projecting light on the screen (2), each source being associated with a set of pixels
 - a device for channeling (4 and 6) the light from each light source exclusively towards the set of associated pixels, this device comprising an alignment grid (4) interposed between the sources and the screen, transmitting the light generated by each source exclusively towards its associated set of pixels
 - a sequential lighting control for said light sources
 - a device for driving the transmissibility of the screen's pixels, applying the pixel signals on the screen in order to multiplex the display of different corresponding images on the screen, synchronizing screen display of one image corresponding to one of the image signals with the lighting of the source associated with this image signal, and driving the pixels for displaying each image in one of said respective set of pixels of the screen.

- a Fresnel lens (3) positioned on the path of the light traversing the screen (2)
- the Fresnel lens (3), the screen (2) and the light sources (71-77) being positioned so that the transmitted images are focused towards distinct respective areas of a visualization environment of the screen.

2. A system according to Claim 1, wherein the light sources (71-77) are adjacent.
3. A system according to Claim 2, wherein the light sources are slightly separated and the system includes diffusers positioned on the light path between the sources and the screen.
4. A system according to any one of the preceding Claims, wherein it comprises multiple respective image signals generators, signals corresponding to respective images of a single object according to the different points of view, the generators being connected to the signals' reception input.
5. A system according to Claim 4, wherein the generators are constituted by a processor generating said image signals from a modeled object.
6. A system according to Claim 4, wherein the generators are constituted by a processor generating said image signals by processing of single image of the object.